

**Notice of Allowability**

Application No.

10/802,691

Examiner

Joseph W. Drodge

Applicant(s)

JOHNSON ET AL

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed August 26, 2005.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☒ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 0905
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 1005
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Pasquale Musacchio on October 10, 2005.

The application has been amended as follows: Claim 1 has been amended as follows:               --

Claim 1 (proposed amendment): A method of cleaning a membrane filtration module, the module comprising, an upper header, a lower header, and at least one membrane situated in a feed-containing vessel, wherein the membrane extends longitudinally between the upper header and the lower header, wherein a first end of the membrane is potted in the upper header, wherein a second end of the membrane is potted in the lower header, wherein the upper header and the lower header are vertically spaced, wherein at least one of the upper header and the lower header comprises at least one opening, and wherein the membrane comprises a permeable wall, the method comprising:

- a)       applying a feed comprising at least one contaminant to a first side of the permeable wall and withdrawing a filtrate from a second side of the permeable wall and through a first vessel port;
- b)       suspending applying the feed and withdrawing the filtrate;
- c)       cleaning the permeable wall by applying a backwash, whereby the contaminant is dislodged from the permeable wall and into a liquid surrounding the membrane;
- d)       sweeping the feed-containing vessel with feed in a direction substantially

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parallel to the membrane, whereby the liquid containing contaminant is removed through the opening and through a second vessel port; and

- e) recommencing applying the feed and withdrawing the filtrate.

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The following is an examiner's statement of reasons for allowance: Claim 1 and claims dependent therefrom are now deemed to distinguish over the closest prior art, Kopp et al patent 4,935,143 in view of combination of recitations of withdrawing a filtrate from a second side of the permeable wall and through a first vessel port, cleaning the permeable wall by applying a backwash to dislodge the contaminant into a liquid surrounding the membrane and sweeping the vessel with feed in a direction substantially parallel to the membrane whereby the liquid containing contaminant is removed through the opening and through a second vessel port.

In Kopp et al (see especially figure 7 and column 8, lines 59-66 and column 9, lines 51-56), the step of sweeping is conducted concurrently with backwashing by an introduced gas, that may be drained through a bottom header of membranes and a lower port, introduction of feed occurring only during filtering, wherein all filtrate is withdrawn through the top header of membranes and out an upper port.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).  
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JWD

October 10, 2005

  
JOSEPH DRODGE  
PRIMARY EXAMINER